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THE FARMERS' CABINET,

DEVOTED TO AGRICULTURE, HORTICULTURE AND RURAL ECONOMY.

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For the Farmers' Cabinet.

OBSERVER---NO. X.

THE CUT WORM.

A writer in the Cabinet, vol. 1, p. 6, says that the *cut worm* "is the offspring of the *phalæna destructor ;* wings horizontal, white, with small dark spots, under wings, orange." The *phalæna* thus described may, for aught I know, produce *a* cut worm, but I am quite certain that it does not produce *the* worm commonly so called, in Pennsylvania. It is quite probable that more than one species of worm may *cut* corn, and, thence, acquire the name of *cut worm.* This is a point worthy of accurate investigation. I am acquainted with the insect described by "Senex," but not with its caterpillar.

Several years ago, I confined a number of cut worms in a box of earth, during their transformations, and succeeded in obtaining the moths, or phalænæ from them. Some of my agricultural friends made similar experiments. We all obtained the same result; but *our* phalænæ were totally different from that of "Senex." I determined to repeat the experiment the present year. About the end of the fifth month, when the cut worms had nearly acquired their growth, I placed a number of them in a glass jar, half filled with moist earth, and loosely covered. They were fed on the leaves of the common elder, (sambucus canadensis,) of which they appear to be immoderately fond.* During the day, they lay concealed in the earth, and at night, fed on the leaves. Some of the number died, but the larger part completed their larva state, and entered the earth to undergo their first metamorphosis. I examined the earth in the jar some days after, and found that the pupæ were each enclosed in a *ball* or *follicle* of clay. These follicles were composed of the common earth, cemented together by some adhesive fluid which the worm had furnished for the purpose. They were of a roundish oval figure—near an inch in their longer diameter, and smooth on the inner surface. The walls were about an eighth of an inch thick, and loosely connected with the exterior earth. They were somewhat impervious to water, as on trial, a drop placed on the surface, did not readily enter.

Nearly all the phalænæ made their appearance on the two first days of the present month.

The Linnæan genus phalæna, contains such a numerous assemblage of insects, and withal, so diversified, that subsequent entomologists have divided, and subdivided it, into a great number of genera. The number of the species, and the near resemblance of many of them, renders a distinct classification and description of them extremely difficult. Many of the modern genera have their characters drawn from the larvæ. Possessing little knowledge of entomology,—not having access to any description of my phalæna, (if such exists,) and having neglected to preserve a description of the worm, I cannot attempt to determine its position in the systems, or to give its specific characters. The following *general description*, taken from a number of specimens now before me, will give some idea of the insect.

Pupa.—Length, about seven-tenths of an inch ; smooth, shining, at first dirty white, or yellowish, becoming brown, or almost black—

* Hence, it is the practice of some farmers, when the cut worms are numerous, to strew bunches of elder leaves over their corn fields, and in the morning, go round and destroy the worms which are found collected under them in large numbers.

rudiments of the wings strongly defined—abdomen tapering, abruptly terminating in a short, bristle-like point—annuli or rings distinct, and quite movable—spiracles, or breathing holes, on the sides of the rings, projecting in form of short flattened tubes. Duration of the pupa state, about three weeks.

Perfect State.—*Color*, variable shades of blackish gray—*length*, three-fourths of an inch—*body*, stout—*movements*, sudden and rapid—*habits*, nocturnal.

Antennæ, long, setaceous or bristle-shaped; *eyes*, laterel, large, black; *palpi*, projecting forwards, hairy, last joint very small, scaly; *tongue*, very long, horny, spirally rolled up beneath the head; *thorax*, tufted with long hairs, marked anteriorly with a transverse, wavy, black line; *wings*, horizontal, incumbent, the superior ones overlapping, ciliate or fringed behind, with long scaly hairs, and ornamented above with faint lines, and spots of different shades of gray, and brown; inferior ones lighter colored, the inner margins folded and fringed with long whitish hairs; *thighs*, covered with long hairs; *legs*, hairy above, spinosi, ciliate on the posterior edges, the hind ones, with a pair of long spines near the middle; *feet*, with two similar spines at the first joint; *spines*, white, with a black ring in the middle; *articulations* of the feet, white.

Supposed female—upper wings, silvery grey, with the lines and spots similar, but less distinct than in the male.

Habits.—I am not aware that the manner in which the cut worm, phalæna deposits its eggs, has ever been observed. I can, therefore, only arrive at probable conclusions. As very few phalænæ survive the winter season, it is probable that the eggs are deposited in autumn, among the grass, at or near to the surface of the ground. The eggs appear not to hatch until spring.

The correctness of this view, is inferred from the success of fall or very early spring ploughing, in preventing the ravages of the cut worm. It may be proper to inquire a little, how winter ploughing produces this result. I apprehend that the eggs become buried so deep in the earth, that the vivifying influence of the sun and air does not reach them, or if they do hatch at such a depth, they must perish before reaching the surface, where alone food is to be found to nourish them. In late spring ploughing, the same thing would not so certainly happen; vegetation having started, the proper food for the worms would be buried along with them, and the loose state of fresh ploughed land not only admits the passage of warmth and air, but would greatly facilitate the egress of the worm to the surface. Even should the moth survive the winter, and not deposit its eggs till spring, the foregoing explanation will apply equally well; or if the moths should find the ground already ploughed, they would probably seek some other field in which to deposit their eggs. It is generally admitted, that *fall or early spring ploughing* does, in some way, prevent the cut worm from injuring our corn crops.

Some prefer having the sward imperfectly turned down, so as to have a portion of grass remaining on the surface for the worms to feed on. But these should remember, that this practice may preserve alive a number of worms sufficient to do the corn crop a serious injury. By turning all down, they might destroy the worms, and render the precaution of feeding them unnecessary.

Another means of lessening the injury from the cut worm, is to plant deep. The heart of the plant remains longer in the ground, and if the worm should cut it off above, the growth is but little retarded.

I hope others will investigate the subject, and make known the results.

New Garden, 7th mo. 25th, 1837.

Manufacture of Beet Sugar.

The following letter from an intelligent French gentleman residing in Louisiana, to a gentleman of this city, will be read with attention by those who are interested in the cultivation of the Beet Root, and its fabrication into Sugar. This "branch of industry" promises to be of great advantage to the country. We hope that those engaged at present, will give it a fair trial—and persevere until the most triumphant success shall crown their efforts.

St. James' Parish, Louisiana, June, 1837.

Sir—I am indebted for introduction to your acquaintance to Mr. Edward Harris, and beg leave to ask your kind information concerning the actual state of fabrication of Beet Sugar in Pennsylvania. I was a manufacturer of said article in France, and have been engaged three years as foreman of the model farm established in the State of Louisiana. I have compared the fabrication from cane with the one from beets, and am convinced that both are subject to great modifications. You would oblige me by mentioning the manner in which you intend to boil your beet syrup. Is it by evaporation or by vacuum? To which do you give the preference, to the English systen of Howard, or to one of the four French systems? I shall be happy to receive your advice, as well as any questions you might desire to make, and I am convinced that my experience might be of

some service to you. Please to mention also, what use you intend to make of the remnants of beets. These remnants are of greater value here than in France. I have studied and compared this branch of industry, and I do not hesitate to say, that if the acre can produce here, as in Europe, from 30 to 40,000 lbs. of beets, it will be the most important branch, cotton excepted. Should you not be provided with all kinds of machinery, I have here at your service four large boilers, with double tubes, called *a la moul farine* for vapor boiling, and another for the vacuum.

Please to honor me by your answer, and receive the assurance of my high consideration.

CLAUDOT DUMOREL.

Beet Sugar.

At a time when so many are, from necessity, turning their attention to some new employment, it cannot be amiss to refer to the advantages which the cultivation of the Sugar Beet hold out to those who are desirous of entering on the duties of a farm. It is but recently that this article has been introduced into the United States, and few are probably aware of the profits arising from its culture. The Sugar Beet is adapted to every variety of soil, and can be raised in all parts of our country—from the rich alluvial lands of the west, to the almost sterile of the New England States. The machinery for its manuture has been brought to a high degree of perfection in France, but no doubt admits of still greater improvement.

The average crop of roots in France, is 40,000 pounds per acre. The per centage of saccharine matter is 12; but only 4 to 8 per cent. is obtained. The products of sugar, therefore, from one acre, are about 3000 pounds, which at 8 cents, would give $240, exclusive of the molasses. The cakes are also useful in fattening cattle and sheep. Comparing it then with the average crop of wheat, which does not exceed 25 bushels per acre, at two dollars, we find a difference of $190 in favor of the beet crop.

The consumption of sugar in this country, is great. Mr. Samuel Fleet, a distinguished writer, and formerly editor of the N. Y. Farmer, states that "during Napoleon's continental restrictions, a fraction more than one pound per head was yearly consumed in France. In England, where the price of sugar is less, and where the people generally are better able to purchase, the consumption is *sixteen* pounds per head. In the East and West Indies, there is a far greater use of it; for instance, in Cuba 120 pounds are consumed by each of the free population."

For the Farmers' Cabinet.

Hollow Horn---Potatoes.

MR. EDITOR—I have read with much attention the controversy in the Cabinet on the "Hollow Horn." I am not about to enter the lists, but suffer me to ask why it is that Subscriber, who believes firmly in the Hollow Horn, has not given us the *remedy.* That's what I want to know. Now for my experience. About nine years since, my cattle were afflicted with the Hollow Horn, and it afflicted me very sorely, I assure you, as several of them died. But I *bored* away.—One morning while engaged in this business, I was accosted by an intelligent farmer, recently from England—he was surprised at the operation. I told him that it was the only way of saving my cattle—that several had already died of the Hollow Horn, and the others assuredly would, unless *bored.* He absolutely laughed at me—I felt provoked, but was still willing to hear him, as I might get an original idea. He stated that the "Hollow Horn" did not exist in England. That it was not a disease of the horns, that hornless cattle had all the symptoms, &c. He advised me to desist boring—After much persuasion I did so; and he recommended me to give each of my cows a half a peck of potatoes twice a week, for three or four weeks in succession, and then occasionally, as circumstances might require—and by all means to keep my cattle well sheltered, and in good condition. I obeyed his directions—and the consequence is, that my cattle have not been troubled with the hollow horn since that time. I have, therefore, come to the conclusion, that cattle well housed in bad weather, and kept in good heart, at all seasons, and properly attended to, stand in no danger of hollow horn.

A MONTGOMERY COUNTY FARMER.

Implements for Boys.

A friend who feels considerable interest in the promotion of agricultural science,—and whose practice in this matter corresponds with his sentiments, has called our attention to the subject of agricultural implements for boys. He states, that in many cases he has observed a marked difference in various respects, between those who have had implements suited to their age and strength, placed in their hands, and those who have been compelled to operate with such as are disproportioned to their years, or the physical force they are capable of exerting with ease. The importance of this subject has not been duly estimated—indeed, it has been almost entirely overlooked. We ask for it the attention of our correspondents.

Draining, No 1.

BY AGRICOLA.

Lands to be drained are usually dvided into two classes: 1st, uplands, or those which are situated so high, that the water can descend from them, if properly collected and conducted; and 2nd, low, flat and wet lands, such as command little or no fall.

When water, in descending from highlands, spreads over a considerable space in a flat or hollow, a ditch should be cut in the lowest parts of the ground, deep or shallow, according to circumstances, which will have the effect of throwing the water into a narrow channel, and of giving it a free and unobstructed course; by which means the land will be reclaimed and admit of cultivation to the borders of the drain.

It frequently occurs that a multitude of springs break out at the termination of the highland, and spread their waters over the adjacent low grounds, which render them useless or unfit for cultivation. If the water rises in a bold spring at the junction of the hills with the flat land, a ditch should be cut in the lowest ground in order to give it a free and unobstructed channel to the stream or main drain to which it is tributary. If a multitude of springs ooze in a continued line at the junction of the high and flat land, a deep and wide ditch should be cut, running along the foot of the highland, so as to intercept them all, which should convey the water of these springs into the main drain or outlet, or into one emptying into it.

Drains, to be lasting and valuable, should be covered; otherwise in sandy soils, and in many situations, they are liable to be filled up, or to be washed into gullies. Covered drains, and thereby preserving a level, dry, cultivatable and productive surface, are every way eligible. In grounds where there is a considerable declivity, a straight open ditch in the direction of the declination, is injurious and dangerous; violent floods, in such ditches, always produce a ravine or gully. In all cases, therefore, where land lies on a declivity, care should be taken that the drains have an easy and gentle descent, which is generally effected by carrying them in an oblique or meandering direction.

Covered drains, are not liable to the ravages of floods, and may be straight, without being exposed to the dangers to which open ditches are subject.

Drains that are intended to be covered, should be cut at least three or four feet deep, and gradually narrower from top to the bottom, where they should not be above eight inches wide. A row of poles of such size as nearly, but not entirely to touch, is laid on each side of the ditch at bottom. Green or seasoned brush, without leaves, is then packed into the ditch; if the brush is crooked, it receives a chop in the elbow of the crook, and is put into the drain with the small ends downwards and then pressed down to the poles with the foot. The brush should be packed to within eight or ten inches of the top, and then covered with four inches of dry leaves or straw, and the whole of the dirt to be returned and well rammed. Drains of this kind will have, besides the advantages mentioned, the effect of curing all sour or boggy land through which they may be cut; as the oozing water will be received by the straw, and trickle through the brush down to the open drain, and the wet ground will lose every boggy appearance.

Drains of this description will last a long time, as the brush is completely secured against the effects of the sun and wind. Where rock can be made, drains of this description may be made to last forever; the best method is to place flat stones standing on the bottom and along on one side of the drain, as perpendicularly as the side will admit; then another row of flat stones on the opposite side, placed with the top part to rest against the upright stones, in the form of ∧ making a kind of angle; should this cavity be insufficient for the current of water, another flat-stone may be placed in a reversed form, as ∧> by which there will be a double vacuum fully sufficient for the greatest current.

The remainder of the drain may be filled up with stones, to within about eight inches of the surface; then covered with straw or leaves to prevent the earth from falling between the stones, and fill up the the remainder with dirt that came out of the drain.—Covered drains which have the smallest passage for the water at the bottom, are reputed to be the most durable; as the force of the water has been found sufficient to clear away any small obstacles, accidently obstructing its course.

To the Editor of the Farmers' Cabinet.

Stumps.

Sir,—I believe that it is not generally known, that covering the tops of stumps with the sub-soil, will very essentially hasten their decay. Please give publicity to this fact, as it may be of some benefit to those persons who are clearing new ground. By pursuing this process, they will soon get rid of the stumps.

S. Bray.

Monmouth Co. N. J. Aug. 7, 1837.

Hedges---Osage Orange.

The following interesting article appeared in a late number of the Farmers' Register, published at Petersburg Va., under the editorial direction of E. RUFFIN, Esq., extensively and favorably known to the farmers of our country, as the author of a most valuable essay on calcareous manures.

Hitherto, attempts to construct live fences in this country have mostly failed, in consesequence of the want of adaptation in the material to the circumstances of soil and climate. The thorn flourishes well in the humid climate of England, but in our hot and dry seasons its growth becomes feeble and stunted. The cedar and some other plants, though very ornamental, constitute weak barriers against the inroads of stock.

So many unsuccessful attempts to grow hedges, especially in the states north of us, have induced a general prejudice against that species of enclosure. Every person, however, is disposed to admit, that if a suitable plant for the purpose could be introduced, it would be an important acquisition. At present, each farm is obliged to have from a fifth to a third of its contents in timber, in order to maintain its enclosures. If efficient hedges could be substituted, the advantages would be obvious. A large portion of good land, now unproductive, might be brought into cultivation; and a great amount of labor might be saved, which we are now compelled to bestow on the present system of fencing—to say nothing of the improvement in the rural appearance of the country, which would be effected by doing away our log fences, and rearing hedges in their places.

It is gratifying, therefore, to be assured, that in one of our native plants; namely, the *maclura* or Osage orange, we are likely to realize this desirable object. The maclura is a deciduous tree,* growing indigenously in Arkansas and Louisiana—is perfectly hardy in this latitude, and even as far north as Boston. For a number of years it has been cultivated in the grounds of a few private gentlemen, and in some of the large nurseries. It is only recently, however, that its value has been appreciated, or any pains taken to propagate it extensively. In its native place, it attains to the size of a tree of the second or third class; but in this latitude, its altitude is very moderate, seldom rising to the height of fifteen feet. Its great merit consists in the spreading manner of its growth, the denseness of its branches, and the armature with which they are furnished. Planted in hedge-rows, the maclura would never become unmanageable on account of its size—at the same time, its growth is sufficiently vigorous to make a fence in three, four, or at most, five years, from the seed. It may be asserted with safety, that on land of tolerable fertility, the labor and expense of perfecting a system of hedges, would not be greater than to keep our ordinary enclosures in good order, for the time required to construct them. When completed, this heavy item in every farmer's account would thenceforth be expunged.

The maclura is readily raised from the seed. Unlike those of the thorn, they require no preparation—on the contrary, they vegetate with certainty in two or three weeks after planting. Under tolerable care, the seedings will grow two feet or more in height the first season; after which, they are fit to be removed from the nursery rows to the place designed for the hedge. I raised a number of plants the past year from seeds, the produce of a tree growing in my garden, now eight or nine years old.

For an individual to engage in the business in earnest, it would be best for him to obtain the seed from the south-west, rather than to purchase the plants from a nurseryman. A few dollars would procure enough of the former, and pay all the expenses of transportation, to set a long line of hedge. The preferable mode would be to have them brought in the berries, from which they might afterwards be picked without much trouble. Fifty berries would yield at least a pound of seed, and a pound contains from eight to ten thousand grains. It is the practice to place the sets from twelve to fifteen inches apart, in a single row. These facts will enable any person to form a correct judgment of the number necessary to plant any given length of hedge.

But it is not to be expected, whatever may be the adaptation of any plant to the purpose of hedging, that it will, under a long time, be brought into general use. The most palpable improvements are slow in being adopted. A considerable portion of our country is moreover too much impoverished to admit of the successful rearing of hedges. They belong eminently to a state of cultivation where taste and industry are measurably combined. But if we have worn-out fields, we have also fine districts of country, where their pleasing effects, as well as utility, would be most manifest. What an air of neatness and improvement they would impart to the finely cultivated farms on James river, both above and below Richmond, to those also on the

* That is, it is not perennial, as its leaves fall in the autumn.

Rappahannock, and Roanoke, and in many other sections of the state that might be designated with equal propriety. In most of these places, the lands are so valuable that there is now a great deficiency of timber; and, from necessity, they are therefore almost exclusively devoted to grain. Along the lines of canals also, where permanent fences are obliged to be maintained, there would be a great advantage in planting hedges at once. The idea that, when fairly established, they will never need removal, would inspire a degree of security which cannot be felt by those persons who are in the habit of patching up decayed fences, and calculating the value of a rail in resisting the depredations of stock.

T. S. P.

Goochland county, Va.

Brief Hints for August.

The pressure of work which farmers are obliged to attend to through haying and harvesting, often causes them to neglect the extirpation of weeds at this time, when they are about going to seed. This should be carefully avoided.

After the second hoeing of corn, the weeds among the crop, of which there always spring up more or less, are suffered to have undisturbed possession, and the ground becomes completely seeded with them by another year. A little seasonable labor would prevent this evil. We observed a piece of ground which was kept clear of weeds last year, and another which was but imperfectly cleared of them; the consequence was, that the crop this season (field beet) which grew on the latter piece, was literally hid with a dense growth of weeds, while the other was comparatively free.

Canada thistles, must in no instance whatever be allowed to ripen their seed.

Thistles, mulleins, burdocks, &c., in pastures and fence corners, must be destroyed without fail.

Root crops, as ruta baga, and mangel wurtzel, are liable to be too much neglected after one or two hoeings; they should be kept all the season perfectly clear from weeds, and the benefit they derive from this, and from stirring the earth around them, amply repays the expense of the labor.

With a little pains, it is as cheap to raise a good crop, as a crop of noxious weeds; and seed now selected should be therefore as perfectly freed from foul stuff as possible. If clean wheat is always sowed, we may expect on clean ground, a clean crop; but land will become more and more infested with weeds so long as we sow the seeds with the grain.

Chess being almost universally the worst weed among wheat, no pains should be spared to separate it. It may be done by means of brine, first made strong, and then weakened till the wheat will just sink in it, when the chess, being lighter, floats and is skimmed from the surface. A basket should be used, to let the brine run off the more freely. The wheat should then be spread on a barn floor, two or three inches thick, and about one-fifteenth part of air, slacked lime sifted over it and well stirred. This assists the drying, and destroys the smut.

A good fanning mill will clear most of the chess from wheat by passing it through a few times.

No seed wheat should be considered clean, until by repeatedly spreading handfuls of it on a table, no chess can be found. There is not much of what is termed *very clean* seed that will endure this test.

Underdraining should be performed during the dry season, and those farmers who have wet spots of ground in cultivated fields, should no longer delay this simple mode of rendering such land productive. Open drains should never be made but to carry off surface water. No drain for any other purpose should be much less than three feet deep, but an open one this depth, must be nine feet wide to prevent the banks sliding, and this is an enormous waste of land. But a covered drain occupies no ground. The expense of digging, from this cause is also much greater in case of open drains.

Covered drains may be filled with stone or brush. The stone may be laid so as to leave a small open channel at bottom; or if they are quite small, and the quantity of water passing off not large, such channel is not necessary. Brush drains are filled by placing the branches of trees, freshly cut and with the leaves on, in a sloping direction in the ditch, the leaves upwards, and then covering them with earth. The spaces between the branches below allows the water to flow off. This method of filling is best in sandy ground where stones are scarce.

In cutting off underground channels of water, particularly those which ooze out of the surface of sloping ground, by means of covered drains, the mode of operating should be adapted to circumstances. The common error is to cut in at the wet spot; whereas, the proper place is a little *above*, before the current reaches the surface. The judgment and close examination alone can direct the proper course and situation for the drain in such cases.

Horses often suffer from slobering during the latter part of summer, especially when they feed in succulent pastures. The best remedy is dryer food.

Fruit trees are frequently injured in col-

lecting the fruit, by resting ladders against the branches, and thus bruizing the bark. Apricots, plums and peaches, often suffer much in this way. The remedy is to use self-supporting ladders, constructed like a common ladder, with either one or two expanding legs of equal length, which serve to support it without any other prop.

Budding or inoculating should be performed while the stocks are growing most rapidly, or while the *cambium* or mucilaginous substance under the bark is in the greatest abundance. This cements the inserted buds and makes them adhere the better to the wood. Cherries and plums should be budded immediately, but peaches may be deferred three or four weeks later, if necessary. The general rule is, budding may be performed successfully at any time when the bark peels freely.

If the stocks are thrifty; if the bark is carefully cut and raised so as not to injure the cambium; if the buds are cut smoothly off the shoot so that they may be applied closely to the wood of the stock; if the bandages are bound so evenly that they may just maintain this close contact between the bud and stock; and if they are carefully removed as soon as they begin to indent the growing stock, there can be a little doubt of success in budding.—*Genesee Farmer.*

Advantages of Soiling Cattle.

Von Thaer highly commends soiling over depasturing, and lays down the following facts as incontrovertible:

"1. A spot of ground which, when pastured upon, will yield sufficient food for only one head, will abundantly maintain four heads of cattle in the stable if the vegetables be mowed in proper time, and given to the cattle in a proper order.

"2. The stall-feeding yields, at least, double the quantity of manure from the same number of cattle; for the best and most efficacious summer manure is produced in the stable, and carried to the fields at the most proper period of its fermentation; whereas, when spread upon the meadows, and exhausted by the air and sun, its power is entirely wasted.

"3. The cattle used to stall feeding will yield a much greater quantity of milk, and increase faster in weight, when fattening, than when they go to the field.

"4. They are less subject to accidents, do not suffer by the heat, by flies and insects; are not affected by the baneful fogs that are frequent in Germany, and bring on inflammations; on the contrary, if every thing be properly managed, they remain in a state of canstant health and vigor."—*Com. to the Board of Agriculture, vol.* 1, *p.* 376.

Our habits of farming take much from the force of Von Thaer's facts—for we neither regard land nor manure of any thing the value they do in Prussia; though if we should *run over* less of the former, and better husband and apply the latter, we should undoubtedly be the gainers. Our farmers are apt to boast of the acres they cultivate—of the bushels they sow; but it is very seldom you can come at their nett profits, or the products of an acre.

We copy the following article from the *Meadville Courier*, considering it applicable to the farmers of our section of country. We hope they may profit by the advice contained therein.

"Taking a deep interest in the prosperity of these and the adjoining counties, I would make a few suggestions to our farmers, which they may consider, and weigh how far they are worthy attention.

For some years past I have urged on my brother farmers, the advantages they would gain by employing additional laborers to assist them in the cultivation of their farms, and using greater exertions to increase their crops. Some individuals have informed me that they profited by the hints, raised more abundant crops, and have the gain of good prices. Others replied, we can't afford to hire, wages are too high.

They were mistaken. They adhered to a fixed opinion formed years ago, when wheat would scarcely bring above fifty cents, and rye thirty-one, in cash.

I propose that every farmer should erect in some corner of his wood land, a cabin house, which costs but little; appropriate two or three acres of wood land to it, and say to some industrious laborer who has a family, you shall have a lease of this at a low rent; you may take your fire wood off the land without cost; you may raise your own potatoes and corn; the pasture of a cow in the woods costs you nothing, and hay in the winter but little; come work for me by the month, week or day, as may be agreed on; you can always have provision for your family in pay for your labor. The tenant who would have a certain home, would be much better off than the laborer on the canal, who nominally receives higher wages half the year, and spends his money the other half in idleness, destitute of a home.

But how will it operate with the farmer? He will soon find his crops and all the produce of his farm increasing by the assistance of his tenants, in the busy time of sowing, planting and gathering in. He will find his farm itself soon rendered more valuable, com-

manding a better price if offered for sale, the extension of his improvements, and with some care and management, every farmer may find steady work for his laborers in putting his farm in better order and clearing new land, and adding to his buildings.

I made these suggestions to a farmer, whose reply was, "That is the very plan I pursue." That farmer has every year a great surplus produce for sale, while some of his neighbors must buy, and he has become wealthy by farming.

Every good farmer admits that it is more profitable to work a small piece of land well, than a large piece carelessly. Then, I ask, why not farm a large tract well, by employing a sufficient number of laborers? The mechanic who works single-handed in a town or city, may earn bread for himself and wife, but cannot grow rich; whilst the one who employs many hands, and attends closely to the superintendence of his business, is sure to grow wealthy.

The ironmaster or manufacturer who grows wealthy, draws his gain from the employment of many hands and their industry, and his well managed operations. So with the farmer; if he attempts to work a farm single-handed, he may raise his bread, but can advance but little and slowly in the world. But he who intends to work hard himself, and employs a sufficient number of laborers to assist him, may say 'come and work, and not go and work.' It will take but a few years to show him the vast difference it will make in his worldly prosperity.

Had these suggestions been adopted generally, a few years ago, the community in these counties, would have had the advantage of a more general supply of provisions at this time. But it is not too late now. Laborers are to be had at moderate wages, and many strangers from abroad and from our overgrown factories of the east, will soon be coming amongst us; if they find encouragement held out to them by the farmers, they will remain amongst us, and add to the general wealth as well as to that of their employers.

In conclusion, there can be no doubt that every farmer would find a clear and certain gain by greater exertions and more labor in the cultivation and improvement of his land.

Every poor laborer would be essentially benefitted by obtaining a more permanent home and regular employment among the cultivators of the soil, than on the canal or about the town—and the community would be benefitted by the increased productions of our cultivated soil. The produce of the industry of the farmer and the mechanic, is the real wealth of every country. Money and bank notes, though property in the hands of the individuals who own them, yet to the community, are but the mere measure of value.

A Farmer.

Facts in the Science of Agriculture.

BY PROFESSOR RENNIE.

Lime.—If quick lime, either fresh, burned or slacked, be mixed with moist vegetable substances, however hard and fibrous, it soon destroys their texture, and forms a mixture, the greater part of which can be dissolved in water, thus rendering what was previously useless, fit for food or plants. [Hence the utility of applying quick-lime to reclaimed swamps, or other soils abounding in woody fibre.]

On the other hand, it is injurious to mix quick lime with vegetable substances already soluble in water, or with any sort of dung, or other animal manure, lest it should take up too much humic acid.—[Humic acid may be termed the *essence of dung*, combined with oxygen.]

Sugar and gluten.—There are few plants that do not contain sugar, which chemists have shown to be a compound of about three parts carbon, four parts oxygen, and eight parts of hydrogen.

It would follow, therefore, that it is not necessary to be introduced into the soil in the state of sugar, the constituents being always more or less contained in water, and most probably combined into sugar after entering the system of a plant. This applies also to starch, which is composed on the same principles, and may indeed be converted into sugar, as was lately discovered; and gluten differs only in containing nitrogen. [Gluten is the substance which imparts nutriment to wheat in a greater degree than is possessed by other grain.]

Flavor, color, &c.—All flavor, color, smell, and nutritive qualities, depend for their production chiefly on the action of light. The red color of forced rhubarb, [and of the blood beet,] which seems to be an exception, arises from the red matter previously produced by the agency of light being carried down to the root. [Hence, celery is blanched to divest it of its otherwise acrid taste—and hence fruits growing in the deep shade, are more vapid and colorless than those growing in an open exposure.]

Heat.—The soil of this country, below where the frost usually penetrates, averages a temperature of 48 degrees, or fifteen degrees, above freezing, which is the reason why springs do not freeze, and not any quality in the spring water, which will freeze readily enough when taken from the well. [And this explains why spring water, retaining always near the same temperature, appears

cold in the heat of the summer, and warm during the cold of winter.]

Radiation is the spreading of heat, which arises from heat passing from a hot body to a colder one near it, as uniformly as water runs down a slope. This spreading of heat takes places between the surface of the ground and air; and when the air is cold, though the soil be warm, it soon loses its heat, and dew or hoar frost is formed on the grass, by the moisture diffused in the air, though previously invisible, becoming condensed or frozen. But when the sky is covered by clouds; this spreading and loss of heart is, in a great measure, prevented, and hence there is no dew or hoar frost on a calm cloudy night. It is on this principle, that garden plants are protected by matting, which stops the heat of the soil from spreading about and being lost in the air. Dr. Wells proved this by stretching a very thin cambrick handkerchief, two feet square six inches above a grass plat; and he found on one night, that it was five degrees warmer under the handkerchief than on the rest of the grass plat; and on another night, there was eight degrees of difference. The screen should not touch the soil, or the plant to be protected. In this case it might carry off heat by conduction.

It is on the same principle that snow affords a protection from the severity of frosts, the plants under snow having been found, by Dr. Darwin, to indicate forty degrees, that is eight degrees above freezing; hence some Alpine and Siberian plants, do not bear exposure to frosts when unprotected by snow, so well as those which are natives of a warmer clime.

A reason for a slope or a hill being warmer than a valley, is that cold air being heavier than warm air, the coldest air always rolls down to the lowest situation; but if there be a brisk running stream in a valley, it will prevent, in some measure, the stagnation of cold air; injurious, because the greatest cold always occurs in air having the least motion. Prof. Daniel says he has seen a difference of 30 degrees on the same night, between two thermometers, one placed on an elevation and another in a sheltered situation. Daniel also states, that the same surface which in a calm state of the air, would give off 100 parts of moisture, would yield 125 in a moderate breeze, and 150 in a high wind.

The Fruits of Good Tillage.

We remember to have read somewhere, of an old gentleman who owned a large vineyard. Besides this farm he was blessed with two daughters. On the marriage of the eldest he portioned her off with one-third of his farm, and behold the remaining acres produced quite as much fruit and wine as before. Soon after he married his young daughter and gave her an equal dowry with the first, and still the remaining third of his soil yielded much as his entire original plantation. Good farmers will see no mystery in this. The moral of the story is, that as his farm became smaller he cultivated it more, and the same amount of labor upon a few acres, will make it produce the fruit of many.

There is a great difference between bad tillage and good tillage. Some farmers—no, some earth scrapers, merely scratch up the soil, and after dropping their seed haphazard, trust to the chance of the season. It is not wondered at, that such tamperers have to scratch hard for a living. We have heard many complain that large farms did not pay the expense of their cultivation—that manure is too expensive to use. The earth was therefore, lazily scratched up sufficient to destroy the face of the soil, and the seed thrown away upon it. We need not say that such farmers have but little grain to sell, and not much money in these hard times, to put out at interest.

Take another case, however; that of the farmer who makes his farm his pride, who means to show his labor and his skill upon every acre, and mark the difference. The land pays treble value upon its surface for all that has been bestowed upon it. The owner enriches the soil, and the soil in its turn enriches its owner.

Every farmer to make his farm a source of profit, should make it a source of pride. Whatever portion of the soil is cultivated, should be well cultivated. The point should be, not to have many, but rich acres. The means whereby husbandry is improved and facilitated, should be studied and employed. By such careful attention, a continual pleasure will be found in agricultural pursuits, which will heighten the rewards of good tillage.

A Cottage Garden,

Properly cultivated, is full of beauty. Its well formed walks and borders, adorned with fragrant flowers, exhibit a gorgeous display of richness which cannot be surpassed. The English cottager takes a praiseworthy pride in the various species of flowers which adorn his garden, and not unfrequently prizes are awarded to him by horticultural and other societies, for his skill in bringing to maturity, and presenting the world with improved specimens of floriculture. The study of the vegetable kingdom is also a subject of his earnest solicitude, and the avidity with which he pursues this favorite object is the theme of frequent admiration. The cogno-

men of "the Gardens of England" is certainly an appropriate compliment, and it is but justice to remark, that we are in a good degree indebted to the skill of the gardeners of our "father land" for many of the beautiful embellishments of our gardens. Our author recites several useful hints on this subject; which I here subjoin:

"Another way in which woman may make her labor extremely profitable, is in the management of the garden. She may easily acquire skill and experience, and for my part I think she cannot have a prettier amusement. If there were nothing to be got by it, it is worth a little labor to have the view from your cottage window, ornamented with roses, honey-suckles, stocks and mignonette, instead of seeing a heap of rubbish, or a slough, or a plantation of thistles or stinging nettles. But, let me tell you there is something to be got by it. If you live near a market town, and have a turn for gardening, I do not know of a better thing for a woman to turn her hand to. If proper pains were taken with a flower bed, (and I know of nothing which yields profit without taking pains, except it be money in the funds and the likely way to have that, is by taking pains to produce it,) a flower bed well managed, will furnish you besides supplying your bees, which, under such favorable circumstances, you will of course keep,) more than half the year with four or six nosegays a week, which may be sold to advantage. Suppose they bring you but three pence a week all the year round—thirteen shillings—it will buy your husband a new hat, or your child a warm coat. But this is not all—you will save some seeds of your annuals, and more than to stock your garden for the next year. These you will carefully separate and mark, keeping them from frosts and rain in the winter, and then, in March or April, when people begin to think of flower seeds, do them up in penny or two packets, and display them for sale. If you sell but two or three shillings worth, they will buy what lazy, shiftless people are distressed for."—*Newark Daily Advertiser.*

Pears.

As this delicious fruit is beginning to ripen, and some varieties are of short duration, on account of their rotting at the core, we would recommend to those who have pears, which are subject to this sudden decay, to pick them from the tree before they become mellow, and place them in a cool dry place, as in a chamber, where by spreading them, they can be examined more particularly than when on the tree, and those properly matured, selected for use before they become rotten at the core, which they will not do, as soon as when ripened on the tree.

Explanation of Terms.

Continued.

22. *Green Crops*—are such as continue green while ripening their seed, or till taken off the ground; such as peas, beans, cabbage, carrots, turneps, &c.

23. *White Crops*—are such as become bleached, or turn white and dry while ripening their seed; such are all the various kinds of grain.

All plants, while their leaves continue green, and especially such as have large leaves, draw much of their nourishment from the atmosphere. The *green crops* therefore, exhaust the soil much less than the *white crops*, whose leaves becoming dry, receive nothing from the atmosphere, but draw all their support from the soil, while ripening their seed.

24. *Rotation of Crops*—is a course of different crops, in succession, on the same piece of ground, for a certain number of years, after which the course is renewed and goes round again in the same order.

There is a difference between a *course of crops* and a *rotation of crops*. Thus, if a piece of ground in sward be broken up and planted with Indian corn the first year; the second year with potatoes; the third year sowed with oats and grass seed; and mowed the fourth, fifth, and sixth years, this makes a course of crops. If then, the seventh year, it be again broken up, planted as before, and the same course of cropping pursued, it becomes a *rotation of crops.*

25. *Soiling*—is the feeding of cattle, either in the barn or yard, through the summer, with new mown grass or roots.

26. *Live Hedge*—is a fence formed of living plants, usually the white thorn, planted closely in rows, which being trimmed annually and kept clear of weeds, in a few years grow into a living, permanent fence, capable of stopping effectually every kind of domestic animal.

Most of the common farm fences in England are of this kind.

27. *Quicks*—a name commonly given to the young plants of the white thorn used in planting hedges.

28. *Layers*—are the tender branches of trees and shrubs bent down and buried in the earth, leaving the tops out, in which situation they are fastened with hooks to prevent their rising.

The part in the earth sends out roots, after which it is separated from the parent tree, and transplanted, in the same manner as trees raised from the seed.

29. *Cuttings or Slips*—are small portions of the twigs, branches or roots of trees or plants, cut off with a knife, or slipped off

with the thumb and finger, for the purpose of setting or planting in the earth, with a view of producing new plants or trees of the same kind.

30. *Sets*—are young plants taken from the seed bed to be set or planted out.

Cabbage and various other plants are usually propagated in this way, being first sown in beds, from which the plants are taken up and set out in fields or gardens.

31. *Fallow*—signifies land in a state of rest, not being planted or sown for a season, but repeatedly ploughed and harrowed, for the purpose of clearing it of weeds and of dividing and pulverizing the soil more perfectly.

Such is sometimes called a *naked fallow*, because the land carries no crop.

32. *A Green Fallow*—is that where the land has been rendered mellow and clean from weeds, by means of some kind of *green crop*, such as turneps, peas, potatoes, &c., cultivated by the horse-plough and hoe.

The crop so cultivated and for the above purpose, is called a *fallow crop*. In this mode of fallowing no time is lost by the land being left idle or in an unproductive state. Fallowing is sometimes distinguished by the season of the year in which the business is either principally or wholly accomplished; hence we have summer, winter and spring fallows.

33. "*Winter Fallowing*—is only breaking up the land, or ploughing it in the fall, and leaving it exposed to the action of the frosts of winter."

34. *Dibble*—is a tool of very simple construction, for making holes in the ground, at equal distances, in which certain seeds are sometimes planted.

Seeds planted in this way are said to be *dibbled in*. It is used also in transplanting. The handle of an old spade or shovel, sharpened at the lower end may answer very well for this purpose.

35. *Tiller*—is a term used to signify the branching out of a single grain, as of rye, oats, or wheat, *into several stalks*.

Where the individual kernels of any grain throw up *many* stalks, it is said to *tiller well*. Each shoot thrown out in tillering may be removed and treated as a distinct plant. A remarkable instance of this is related in the fifty-eighth volume of Philosophical Transactions. Of some wheat sown in June, one of the plants was taken up in August and separated into eighteen parts, and replanted: those plants were again taken up, and divided in the month of September and October, and planted out separately to stand the winter, which division produced sixty-seven plants. They were again taken up in March and April, and produced five hundred plants, from which grew twenty-one thousand, one hundred and nine heads, yielding three pecks and three-quarters of wheat, all produced from one single grain.

36. *Ley*—a term used in agriculture, to signify land in the state of sward or grass.

We frequently read of wheat being sown on a *clover ley;* by which we are to understand, land in clover, directly after mowing, being turned up, and sown with wheat on the back of the furrows.

37. *Meadow*—grass land for mowing.

In this country, the word is seldom used to signify upland mowing, but that which is low and moist, and seldom or never ploughed. In other countries, and by some writers on agriculture in this country, it is the name given to *all mowing grounds*.

38. *Effluvia*—are those small particles flowing out of any substance, which produce in us the sensation of smell.

Thus, most flowers send forth effluvia; and substances in a state of putrefaction send forth effluvia of a very different nature.

39. *Chemistry*—is the science which enables us to discover the nature and the properties of all natural bodies.

40. *A Simple Substance*—is one which cannot be decomposed; or which is not produced by the union of two or more substances; such as iron, sulphur, &c.

Sir Humphrey Davy, a celebrated chemist in England, reckoned forty-seven known simple substances in nature.

41. *A Compound Substance*—is one which may be decomposed; or which is produced by the union of two or more other substances of different natures.

Thus, gun-powder is a compound substance being composed of charcoal, sulphur, and saltpetre; and these substances, or those which united together, produce a compound substance, are called its *constituent* or *component parts*.

42. *The Elements of Matter*—are the simple substances into which all surrounding objects are capable of being reduced.

All the substances about which agriculture is employed are compounds; that is, they consist of elements into which they are capable of being resolved. Of this no farmer should be ignorant; and he ought to attain at least to so much chemistry as to know the nature, the properties, and the combinations of those elements, (the number of which is very small,) which are continually working such wonders before his eyes.

43. *Analysis*—is the resolution or separating of a compound substance into its elements, or constituent parts.

44. *Caloric*—is the name which modern chemists have to fire; or rather, it is that ex-

tremely subtle fluid which produces in us the sensation of heat.

The sun is the grand source of caloric; it is afforded also from combustion, and in various other ways. Thus, take a small phial about half full of water, grasp it gently with one hand, and from another phial pour a little sulphuric acid, or oil of vitriol as it is sometimes called, very gradually into the water. The phial will become hot, which is in consequence of the caloric disengaged from the mixture.

This subtle matter pervades the pores of all known substances, most of which are capable of existing in *three different states*—the solid, the fluid, and the aeriform or gaseous state; and these three different states depend on the quantity of caloric which may be present in any substance, at *any one time.* The first of these, termed *the solid state*, depends on the presence of *a small quantity of caloric;* such is water in the state of ice;—when the quantity of caloric or matter of heat is increased to a certain degree, the body passes into the second or *fluid* state; such is ice or lead when melted; and by still farther increasing the quantity of caloric or heat, it rises into vapor, called the *aeriform* or *gaseous state*, or simply GAS.

"Almost all natural bodies are susceptible of existing from the mere expansive energy of caloric in these three states; and the only difference among them is, that some require *less* and others a *greater* proportion of caloric to induce these changes. Water, which usually exists in our atmosphere as a fluid, can fluctuate by a very slight alteration of the thermometer, either into *solid* ice, or into aeriform vapor. All the metals exhibit the same phenomenon. If solid they melt by the application of fire into a fluid mass; and if that be carried to a given pitch of intensity, they fly off in fumes and assume the gaseous state. The solid earth is not exempt from the dominion of this universal law. Flint and sand when put in the furnace, dissolve into liquid glass; and if exposed to a still more powerful heat, they are dissipated in vapor and assume new aerial forms. Let it, therefore, be remembered, as an established principle in chemistry, that when different portions of *caloric* enter into combination with bodies, they pass, according to the quantity, into the respective states of *solidity, fluidity*, or *aeriform vapor.*"

45. *Gas*—is any substance converted to vapor by the action of caloric.

In other words, it is any substance dissolved in caloric; or, it is any substance reduced to the aeriform state by the action of caloric. By the *aeriform state* it must be remembered is meant *a state similar to that of air*, which is neither *tangible* or *visible;* that is, it can neither be handled with the hands, nor seen with the eyes.

It may seem strange that the hard substances from which we receive so many knocks and bruises should in any way be converted into such a state. Yet something of this is seen every day. A log which it would require two men to lift, on being burnt, is all converted into gas, except a residuum of ashes so small as to be collected into a measure and carried by a child. So in the putrefaction of an animal, the solid substance left is little more than sufficient to color the ground; the rest, except some fluid parts which may have sunk into the soil, is all converted into gas.

46. *Alkalies*—are substances of an acrid, burning taste. Their most distinguishing properties are

1st, They change the blue juices of vegetables, as of violets or red cabbage to green.

2d, they render oils missible with water, thus forming soap.

3d, They combine with acids, thereby forming various kinds of salts.

There are only three alkalies;* 1st, Potash, or the Vegetable Alkali; 2d, Soda, or the Mineral Alkali; 3d, Ammonia, or the Volatile Alkali. The two first are also called *Fixed Alkalies;* the latter, or Ammonia, is called the *Volatile Alkali*, because it exists as a gas, and is that substance which on opening a smelling bottle, so effectually searches the nose and head.

To be continued.

Advantages of well Cultivated Farms.

The last season, those who tilled land under a high state of cultivation, were well remunerated for labor expended, while those who tilled worn out farms, scarcely raised the amount of bread stuff, expended during the summer. It is time that more attention was paid to increasing the fertility of the soil, and we are glad to see that the H. F. & H. Agricultural Society have offered a premium of $15 on the greatest quantity of good manure, that shall be made from the first day of June, 1837, to June 1st, 1838. A written description of the making will be required, and an opinion of the best and least expensive mode of increasing the same, regard being had to the number and kind of animals kept in the yard, stables, and pens.

We find a few (and too few) of our farmers awake to the subject, and they have resolved to till less land, believing that they can get larger crops; at any rate they are satisfied that a crop will be more sure on good land

* There is a substance lately discovered, called *Lithia*, which, so far as any thing is known of it, appears to possess alkaline qualities.

than on poor. A gentleman in this vicinity told us the other day, that he had commenced improving his farm in earnest. He had raised the value of his farm, and greatly increased the produce by ditching. He has a spout at his back door into which his soap suds, &c. are poured, and carried under ground to a pen or yard a few rods from his house. This pen is so constructed that he can drive through it with a cart, and here he deposits turf, muck, damaged hay and straw, which a good yard of porkers manufacture into first rate manure. In this way he has doubled the produce of his farm. Much may be done toward improving land by a rotation of crops.

The celebrated natualist Mirbel, has lately given the following explanations of the phenomena that render rotation of crops advisable. "Plants require other elements for their support, besides the elements of assimilation, and cannot thrive without them. For instance there is silex in the cane, and there is lime in certain plants, (say wheat) whose organization could not be completed without it. The quantity of any such foreign ingredient in a plant is generally small; still the necessity for it may be presumed as absolute. Plants cannot be constituted unless all the materials they require be furnished to them; and indeed the same observations will apply to animals; deprive a hen of lime, her eggs will have no shell; deprive the earth of its salts, such as form potash, soda, or in combination with minerals, lime, gypsum, &c., and you destroy its productive power. The smallest quantity of gypsum will have a remarkable effect on clover; and the effects of the other combinations are scarcely less visible on other varieties of plants. But the formation of these salts, or materials, exciting and sustaining the growth of plants, when spontaneous, is slow, and the result of regular chemical changes which have been at work for centuries; and when the natural and limited supply is exhausted as it soon must be, if the successive crops of the same kind are forced upon the soil, the plants will look yellow and shabby, each year renders it more worthless, until finally not enough will grow to repay cultivation. Let the crop perish where it grew, the earth will re-assume the minerals and salts extracted from it during such growth, and the same plants will flourish indefinitely."

The most ignorant ought not to be ashamed of seeking for more knowledge, though the most learned might well be ashamed of remaining willingly ignorant, when there is an opportunity to learn.

From the New York Farmer.

Management of Sheep.

Messrs. Editors,—In pursuance of the intimation in my last communication, I will now proceed to mention the "sins of omission and commission," relative to *washing* and *shearing* of sheep.

To correct, however, the slovenly mode practised by farmers, in general, in reference to both, is indeed a hopeless task;—to prove that it is downright dishonesty to sell wool to which is attached from 25 to 50 per cent. of filth and dirt, of which the manufacturer is ignorant until discovered in the process of using, is easy enough. But moralizing in these corrupt days is almost useless. I shall attempt to prove, however, that in these matters, honesty and interest go hand in hand, he that *will* be honest, will sooner or later find his reward.

It is common for farmers to prepare a pool by daming some convenient brook, which, doubtless, in many instances affords pure water, but nine times in ten is little better than a hog mire. The sheep are then soused in, held for a minute or two, the wool squeezed, and then let go, and pronounced *well washed*. If a by-stander questions it, or the owner feels some qualms of conscience, both are quieted by stating the fact, "that the fleece will weigh heavier if it is not *quite* so clean, and the dirt will bring as much as the wool." This is thought a "cunning thing" to *shave* the speculator or manufacturer.

When the time of shearing arrives, or rather is proceeding, these same *honest good meaning sort of men* take special care, in order that the fleece shall not fall short of weight, to scrape up every thing, consisting of wool not the sixteenth of an inch long, dirt locks, dung locks, bur locks, &c., which is carefully put *inside* and the fleece rolled in "first rate style." All this trash is of course excluded from the buyer, whoever he is, and from the external appearance, is deemed in good order and condition. But the manufacturer, at his cost, discovers not only the fair article, but much that is worse than nothingness within.

If these *honest good sort of men*, who are so *cunning* as *thus to prepare* their wool for market, will but take the trouble to cleanse a fleece, as the manufacturer is obliged to do before it is put in a process of manufacture, he will readily ascertain what a gross deception it is—the result will be, that a fleece *prepared* as above, described with its *beautiful superfluities*, and weighing 4 lbs., would be reduced by the cleansing operation to 2½ to 2¾ lbs.

Your readers need not suspect this picture overdrawn—it is true to the letter, and for

confirmation, let them appeal to the manufacturer.

Yes, my brethren wool growers, the picture represents faithfully the practice of too many of us. Is it honest and fair?—is this the way our gains are to be augmented? is this a principle to instil into our sons, and our example proper for them to follow? For my part, I will raise my voice, and condemn both principle and example as abominable dishonesty. As well might we fill our fleeces with stones, and sell them for wool, or sell our wheat and deliver chaff.

But this neglect, Messrs. Editors, in regard to wool, is only an item among the many, which farmers are guilty of;—it is of the same stamp and character with others, which go to make up the opinion which is formed of us abroad as well as at home, viz: that as a body, the farmers of this country are more neglectful, careless and slovenly, in their agricultural pursuits, than any others on the face of the civilized portion of the earth.

The above remarks are sweeping, but will apply, generally, with full force to farmers in this region. My knowledge is acquired not from what my ears have heard, but from what my eyes have seen.

But I am happy to state, that in the New England states, these "sins of omission and commission," are not so generally practiced. And well it is, that there are a "redeeming few" who put their wool in such order that they are not ashamed, when it is offered for sale, that the light should shine *inside* as well as *out*. If honesty be the impelling motive for doing the *clean thing*, so much the more redounds to their praise: if it be interest which dictates, why—it is perhaps as well.

At the Eastward it is common, with many of the wool growers to make use of vats for washing their sheep. This mode I have adopted. The size of my vat is ten feet in length, and about six feet in breadth. About the sides of the vat, are temporary platforms erected for the washers to stand upon when washing. The water is conducted by means of two troughs or spouts; and the fall is about four feet. Having two spouts, of course, the washing of two sheep can be carried on at the same time—during which, two others are put in for the purpose of soaking. The object of soaking the wool is to loosen the dirt:—by so doing, when the sheep are transferred under the spout, it separates more readily from the wool.

The advantages of washing in a vat, are the following—a man can stand beside a vat, and wash *all* day—whereas, if he is up to his waist in a pool, two hours is as long as he can endure the cold.

The water falling some three or four feet, removes the dirt quicker, by far, than it can be done by squeezing the wool, as is common:—and moreover, the water is all the while pure and clean;—in a pool it is always rily. Two active men in this way, will wash 400 sheep in a day.

My vat is made of two inch plank, well secured at each end by gripes, which are of oak timber, and the entire cost, including platforms, did not exceed seven dollars.

I have uniformly endeavored to put my wool, in every respect, in the best order, as regards cleanliness. I have been laughed at *by honest well-meaning sort of men*, for being thus particular. But I have, through life, adopted the proverb, that "honesty is the best policy," and, also believing that some time or other, purchasers of my wool, would discriminate between *it*, and *such* as is *prepared* in the manner already described in this communication.

My wool has been purchased by the Messrs. Lawrence, of Boston, for several years, than whom, most of your readers are well aware, no men stand higher in our country for business, talents, and integrity. I will here insert an extract from two of their letters, relative to the condition of my wool. "In fixing prices, we have allowed you five cents per pound, more than ours cost us this season, for the reason, that yours is in much better condition than is usual." And again in reference to the clip of last year. "Our sorts will turn out from two to three cents per pound less than we have allowed for yours, on purchases of over 300,000 pounds, but the condition of yours was very good." &c.

Want of room, Messrs. Editors, will compel me here to leave the subject. My efforts, uniformly, to put my wool in the best condition, I am satisfied, have been amply rewarded. I have also satisfied myself, that honesty and true interest go hand in hand. I hope your readers, who are wool growers, are satisfied of the truth of this position, will do likewise, and find their reward.

I intended, in this communication, to have exposed the slovenly practices of farmers, in reference to shearing of sheep, but defer it to another time.

M.

Lansing, Tompkins Co. N. Y.

Blight in Pear Trees.

The Pennsylvania Horticultural Society, anxious to promote the discovery of a preventive for the disease usually termed *blight* in Pear Trees, offers a premium of FIVE HUNDRED DOLLARS, to be paid the person who shall discover and make public an effectual means of preventing its attack. The premium not to be awarded till after the expiration of three years from the publication of the preventive, nor until the Society shall be fully satisfied of its efficacy. Communications on the subject may be addrrssed per mail to DAVID LANDRETH, Cor. Sec. Philadelphia.

How to keep Cattle out of the High Way.

Cattle are much inclined to run in the highway either when that affords the best feed, or when they have no other pasture. By the process here recommended, you will compel these vagrants to *walk in different paths*, and if your fences be good, the enclosures of their owners will be more likely to afford them an asylum.

This simple process then accomplishes three objects. It kills your bushes and briers, makes you a good manure, and drives stray beasts from the road. One more advantage shall be named,—besides what you gain in addition of beauty to your rows of winter apple trees will grow and bear better by the roadside ploughing in this manner, than they will when you leave the soil and bushes undisturbed.

Young trees particularly cannot contend with success against the roots of grass and bushes. Breaking up the soil, even if a part of it be carried away is beneficial to them.

None but winter fruit should grow by the road side, and the Baldwin is here to be preferred to the Greening, as it grows more erect and will not rudely salute the civil traveler.

By picking these winter apples in season you will save nearly the whole fruit to yourself; but suppose you lose one-half, and it gets into the pocket of the traveler, you can well afford it, for only half the shade of the tree falls on your land. And trees growing by a wall are usually much more productive than those standing in mid-field.

Keeping Fruit.

At a recent meeting of the Horticultural Society in London, a paper was read, entitled "An account of the different modes of keeping fruit, which have been tried at the Society's garden for the season of 1831." The statement was drawn up at the garden, and enumerated eight different modes; the three best and most practicable of which were, the covering of the fruit in pure and perfectly dry sand, dry fern, or in a deal box buried in the earth. By any of these modes it was preserved, free from shrivelling and any disagreeable flavor; in all it must be deposited in a cold situation. By the other five modes, although the fruit was preserved in a pretty sound state, a musty flavor was found to be communicated; this was especially the case where oat-chaff was the medium.

Excess of ceremony shows want of breeding; that civility is best which excludes all superfluous formality.

Corn---The Weevil.

As the season is now approaching when farmers will commence gathering their corn crops, I deem it my duty, (as a farmer,) to inform them, through the medium of your paper, how to secure their corn from the ravages of the weevil, which often, during the summer and fall seasons, entirely destroys whole houses of corn. As the remedy is so simple and cheap, I am in hopes no farmer will leave it untried. It is simply this. When hauling in a crop of corn, have a mixture of salt and water prepared (say one pint of salt to a gallon of water,) and as each load is thrown into the house, sprinkle it thoroughly with salt and water, and it will entirely prevent the insect from breeding in the corn, and likewise cause the husks to to be more palatable for stock of any kind. As I know this from experience, I feel no doubt in recommending it to others.

A Farmer.

The Farmer's Song.

Sweet is the bread that toil hath won,
And sweet the sleep it brings,
And sweetly when the day is done
My cheerful helpmate sings:
How proudly round my hearth I see
My sturdy sons draw near,
And O how kindly smiles on me
Each one that's gathered here.

A thousand songsters welcome me
Forth to my daily toil,
And flowers of many a form and hue,
Upspringing from the soil:
The Spring with promise, beckons me
To sow the needful grain,
And glorious Autumn, thankful, shows
Its harvest mantled plain.

The student in his narrow cell
Reads by his midnight lamp:
I read in Nature's open book
Truths of immortal stamp:
While monarchs tremble on their thrones,
And quakes the city's lord,
I firmly stand upon the earth,
A basis deep and broad.

Sweet is the bread that toil hath won,
And sweet the sleep it brings,
And sweetly when the day is done
My cheerful helpmate sings:
How proudly round the hearth I see
My sturdy sons draw near,
And O how kindly smiles on me
Each one that's gathered here.

ARTICLES.	Philadelphia, Aug. 12.	Baltimore. Aug. 8.	New York, Aug. 12.	Boston, Aug. 9.
Beans, white, per bush	$1 37–1 62½	1 25—1 50	0 00—0 00	1 37—1 75
Beef, mess, new, per bbl	14 00–15 00	13 00–14 00	13 50–14 50	15 00–15 50
Bacon, western, per lb	8½— 10	7— 9	8— 10	.....
Butter, extra, per tub	12— 13	16— 20	18— 20	— 20
Butter, fresh, per lb. (market,)	18— 25	20— 25	25— 31	25— 26
Hams, per lb	12— 15	10— 13	12— 14½	14— 15
Hog's Lard, per lb	11— 12½	9— 10	9— 10½	9— 10
Cheese, American, per lb	10— 10½	9— 11	7— 9½	9— 13
Beeswax, yellow, per lb	25— 26	23— 25	23— 25	25— 30
Beeswax, white,	.....	38— 40	38— 40	38— 40
Bristles, American,	42— 65	25— 65	25— 65	.....
Flax, American,	8½— 9	9— 10	9—	9— 12
Flour, best, per bbl	8 25—9 00	7 87—8 50	8 00—9 25	8 50—10 00
GRAIN—Wheat, per bush. Penna	1 70—1 90	1 55—1 65	1 80—1 85	.....
do. Maryland,	1 60—1 75	1 00—1 25	1 74—1 75	.....
Rye, per bushel,	85— 95	60— 68	—1 00	1 05—0 00
Corn, do	98—1 07	1 00—1 06	1 00—1 12½	1 10—1 12
Oats, do	40— 48	36—	52— 65	75— 78
Barley, do. Penn	.....	.....	1 06—	1 00—1 10
Peas do	1 00—1 25	87—1 00	—	.....
HAY, Timothy, per 100 lbs	75—1 10	00 00–00 00	.....	20 00 pr ton.
Meadow Grass,	70— 80	.....	.....	.....
Hemp, American dry rot, ton,	175 00–	0— 0	130 —140	.....
Hops, first sort, 1836, lb	7— 8	— 9	4½— 6	6— 7
Plaster Paris, per ton,	3 25—3 37½	4 00—	.....	2 00—2 25
SEEDS—Cloverseed, per bushel,	5 50—6 00	6 00—6 50	.....	.....
Flaxseed, rough, do	1 35—1 40	1 37—1 50	.....	.....
Timothy,	2 —	3 00—3 50	.....	2 87—3 00
Tallow, per lb	8½— 9	— 11	8¾— 9	10— 11
WOOL—Saxony, fleece, per lb	00— 00	40— 50	50— 68	.....
Merino,	00— 00	35— 40	50— 58	.....
1-4 and common,	00— 00	25— 30	40— 50	.....

Gentlemen whose subscriptions commenced with the thirteenth number, or second half year of the first volume of the Cabinet, and who may wish to complete their sets by obtaining the first twelve numbers, should make early application for the same. All letters on this subject, must be post paid. ☞ Post Masters are hereby authorized and respectfully requested to forward us the names of persons who may wish to *continue* the work, as well as the names of *new* subscribers; and after retaining twenty per cent. commission, transmit us the balance of any moneys they may have received:—And any gentleman may constitute himself a special agent, by remitting us five dollars, free of postage, for which sum, we will forward seven copies according to his direction.

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